

Highly Migratory Species Management Plan Released

On October 21, 1998, the Highly Migratory Species (HMS) Management Division of the National Marine Fisheries Service (NMFS) announced the availability of the draft Fishery Management Plan (FMP) for Atlantic highly migratory species, including Atlantic tunas, swordfish, and sharks. The draft FMP addresses rebuilding of overfished stocks (western Atlantic bluefin tuna, Atlantic bigeye tuna, Atlantic swordfish, and large coastal sharks), managing healthy stocks at optimum yield levels, limited access, essential fish habitat, economic and social impacts, safety at sea, scientific data and research needs, and permitting and reporting requirements. NMFS is preparing the proposed rule to implement the provisions contained in the draft HMS FMP and will be conducting numerous public hearings throughout the Atlantic, Gulf of Mexico, and Caribbean coasts.

Background

In April, 1993, NMFS implemented the FMP for Sharks of the Atlantic Ocean, which established 3 species management units (large coastal sharks (LCS) - 22 species, pelagic sharks - 10 species, and small coastal sharks (SCS) - 7 species), commercial quotas for the LCS and pelagic management units (2,436 and 580 mt dressed weight, respectively), recreational bag limits (4 LCS or pelagic sharks combined per vessel per trip and 5 SCS per person per trip), and mandatory permitting and reporting. At that time, LCS were determined to be overfished and a rebuilding program was established; pelagic and SCS were determined to be fully fished.

The 1994 Shark Evaluation Workshop (SEW) found that the LCS rebuilding program was overly optimistic and recommended that the projected LCS quota increases be delayed indefinitely. In 1994, NMFS implemented the scheduled 5% LCS quota increase to 2,570 mt dw as a “reasonable compromise.” However, the LCS quota was held at this level in 1995 and 1996 pending another stock assessment.

The 1996 SEW found no clear evidence that LCS stocks were either rebuilding or declining further (p. 21). However, estimates of fishing mortality in 1995 “were approximately 1.7 to 2 times that which would produce a maximum sustainable catch in numbers.... the stock size continuously declined from 1981 through 1995 (although recently at a lower rate); the stock size at the beginning of 1996 was 59-65% of that which would produce a maximum sustainable catch” (p.14). The 1996 SEW report concluded that “[t]he most recent data indicate that the rapid rate of decline that characterized the stocks in the mid 1980's has slowed significantly....Nevertheless, additional reductions in fishing mortality would improve the probability of stock increases for Large Coastal sharks. Analyses indicate that recovery is more likely to occur with reductions in effective fishing mortality rate of 50% or more” (p.1). No additional analyses were conducted on pelagics or SCS.

In response to the 1996 SEW, NMFS reduced the LCS commercial quota by 50% to 1,285 mt dw effective April 2, 1997, as a proxy to reducing the effective fishing mortality by 50%. In addition, the recreational bag limit was combined for all sharks and reduced to 2 sharks per trip, with an exception for Atlantic sharpnose sharks (a small coastal shark). This rule also: (1) established a commercial quota for SCS in expectation of effort shifts from LCS to SCS; (2) prohibited possession of whale, basking, sand tiger, bigeye sand tiger, and white sharks as a precautionary measure to prevent directed fisheries from developing for species considered particularly vulnerable to overfishing; and (3) prohibited filleting of sharks at sea to improve dockside identification to the species level.

On May 2, 1997, a coalition of commercial shark fishermen, dealers, and organizations sued the Secretary of Commerce to set aside the 1997 commercial shark quotas based on allegations of uncertainty in the data used in stock assessments, lack of international management,

and NMFS' assertion that there would be no significant economic impact. On February 27, 1998, United States District Judge Steven D. Merryday issued an amended order that found "that the Secretary acted within his regulatory discretion in setting the quotas but failed to conduct a proper analysis to determine the quota's economic effect on small businesses." Judge Merryday ordered that the agency submit further analyses on or before May 15, 1998, and retained jurisdiction over the case pending review of the analyses. On May 15, NMFS submitted the "Final Consideration of the Economic Effects and Potential Alternatives to the 1997 Quotas on the Atlantic Large Coastal Shark Fishery" to the Court. The case is ongoing although the LCS quota will be maintained until further order by the Court.

The Sustainable Fisheries Act

On September 27, 1996, Congress passed the Sustainable Fisheries Act (SFA), Public Law 104-297, which amended the Magnuson Fishery Conservation and Management Act (renamed the Magnuson-Stevens Fishery Conservation and Management Act). Some key provisions of SFA include: preventing overfishing, and ending overfishing of currently depressed stocks; rebuilding depleted stocks; designating and conserving essential fish habitat; considering the importance of fishery resources to fishing communities (new National Standard 8); reducing bycatch and minimizing the mortality of unavoidable bycatch (new National Standard 9); and promoting the safety at sea (new National Standard 10). The SFA also requires that all species designated as overfished must have an FMP or FMP amendment that includes rebuilding plans that will be submitted for Secretarial review *within one year* of their designation as overfished, and that NMFS establish an advisory panel for each FMP or amendment.

In September, 1997, NMFS submitted the "Report to Congress: Status of the Fisheries of the United States" (September, 1997), and identified all large coastal sharks (including the prohibited species) as overfished, and pelagic and small coastal sharks as fully fished, thereby starting the one-year clock to amend the Shark FMP and develop a rebuilding plan for LCS. NMFS also formed the HMS Advisory Panel which has met six times and provided extensive guidance during the development of the draft HMS FMP.

The 1998 SEW

NMFS held another SEW for LCS species in June, 1998. The 1998 SEW presented updated catch and catch rate information, the results of several population modeling papers, an analysis of the effectiveness of the recreational bag limits, several studies delineating shark nursery and pupping grounds, and information on shark catches and species composition in Mexican fisheries. The 1998 SEW attempted to integrate several population modeling approaches, including demographic methods, catch rate data, and production modeling within a Bayesian framework. As in previous SEWs, several population modeling approaches were used due to the uncertainties in the data and because, while all the models had various strengths and weaknesses, they all provided useful information.

Due to concerns that management of species aggregates can result in excessive regulation on some species and excessive risk of overfishing on others, the 1998 SEW developed and analyzed the catch histories of the two primary commercial and recreational species, sandbar and blacktip sharks, separately. Additionally, due to concerns that the catch series for LCS from the mid 1980s to the early 1990s substantially underestimates the mortality from the commercial fishery, the 1998 SEW conducted "alternate catch" series analyses to assess the sensitivity of the population models to changes in the catch series. Both the baseline and alternate catch series for blacktips included estimated Mexican catches as it is thought that they are caught in both Mexican and U.S. waters. Sandbar shark catches did not include an estimate of Mexican catches because only 7 percent of all tagged sandbar shark returns are from Mexico, suggesting that these catches are not a major source of mortality.

The 1998 SEW provided variable results in that, when the LCS were considered as an aggregate, the results were considerably more pessimistic than when the analyses considered sandbar and blacktip sharks separately. The mean estimates for LCS indicate a slowing of the decrease in recent years; whereas, the means for sandbar sharks show stabilization and perhaps an increase in recent years. Variability in the blacktip shark results dominates any signal from these analyses. The alternate catch analyses of the LCS and blacktip sharks were not substantially different from the baseline results; however, the alternate catch analyses of the sandbar shark resulted in the most optimistic projection with a 50 percent probability that sandbar sharks could rebuild to MSY within 10 years under 1997 catch levels. However, the 1998 SEW Report states “[r]ecovery to MSY is likely to be a lengthy process under the best of circumstances, and it is unlikely that full recovery of the resource to MSY stock level could occur within a decade under any catch scenario” (p. 30).

The Draft HMS FMP

Currently, Atlantic swordfish and sharks are managed under the FMPs developed and implemented under the authority of the Magnuson-Stevens Act. No Magnuson-Stevens Act FMP has been previously developed for Atlantic tunas, though Atlantic Tunas Convention Act regulations have been developed with consistency with Magnuson-Stevens Act provisions in mind. The draft HMS FMP integrates management of Atlantic tunas, swordfish and sharks. NMFS elected to combine the FMP for tunas, swordfish and sharks in recognition of the multispecies nature of these fisheries and to promote better integration of HMS management.

The draft HMS FMP lists several management objectives for the fisheries for Atlantic tunas, swordfish, and sharks: prevent overfishing, rebuild stocks, minimize adverse impacts of rebuilding to the extent practicable, control all components of fishing mortality, reduce bycatch mortality, foster international conservation and management measures, ensure compliance with ICCAT recommendations, improve data collection, simplify and streamline HMS management while coordinating the multispecies aspects of the fisheries, protect areas identified as EFH for tunas, swordfish, and sharks; and reduce overcapitalization in the Atlantic swordfish and shark commercial fisheries (a summary table of the measures proposed for sharks is below).

For all shark fisheries, NMFS is proposing to establish a change in management policy regarding the possession of shark species from one where possession of only species known to be vulnerable to overfishing is prohibited to a policy where possession of only species expected to be able to withstand some fishing mortality is allowed. This measure would reduce the number of species authorized for retention by approximately 50 percent. In addition to the five species currently prohibited, NMFS proposes to prohibit possession of: dusky, night, bignose, Caribbean reef, Galapagos, and narrowtooth sharks from the LCS management unit; longfin mako, blue, bigeye thresher, sevengill, sixgill, and bigeye sixgill sharks from the pelagic shark management unit; and Caribbean sharpnose, smalltail, and Atlantic angel sharks from the SCS management unit. This measure is intended to prevent development of directed fisheries or markets for uncommon or seriously depleted species.

For commercial shark fisheries, NMFS is proposing changes to all three shark management units. For the LCS management unit, NMFS is proposing to separate the unit into two subgroups based on the presence or absence of a mid-dorsal ridge. A number of shark species in the LCS management unit have a mid-dorsal ridge that is easily identified after the carcass has been dressed. NMFS proposes to use this characteristic to separate the LCS into a “ridgeback” subgroup (which would include sandbar, dusky, silky, night, bignose, Caribbean reef, and Galapagos sharks) and a “non-ridgeback” group (which would include blacktip, spinner, bull, tiger, nurse, lemon, narrowtooth, great hammerhead, scalloped hammerhead, and smooth hammerhead sharks), and establish separate quotas and management measures for the two subgroups (note above paragraph

regarding species authorized for retention). Based on observer data that indicate that the primary ridgeback species, the sandbar shark, segregates by size and depth, NMFS proposes to establish a minimum size for retention of ridgeback sharks of 137 cm fork length. Because of the expectation that this minimum size (in combination with other management measures) will reduce ridgeback shark harvests by the amount necessary to rebuild this subgroup, NMFS proposes to maintain the current ridgeback harvest levels of 642 mt dw. Based on observer data that indicate that the primary non-ridgeback species, the blacktip shark, does not segregate by size or depth, NMFS is not proposing to establish a minimum size for this subgroup. To reduce mortality for these species, NMFS is proposing to reduce the commercial quota for non-ridgeback LCS to 218 mt dw.

For the pelagic shark management unit, NMFS is proposing to establish a separate quota for porbeagle sharks of 30 mt dw based on historical harvest levels, and to reduce the pelagic shark quota accordingly to 550 mt dw. This measure is intended to establish separate controls for porbeagle sharks because they are known to be highly susceptible to overfishing. NMFS is also proposing to prohibit possession of blue sharks and a quota for blue shark dead discards of 273 mt dw, based on a ten-year average. NMFS is proposing to reduce the pelagic shark quota by any overages of the blue shark dead discard quota. These measures are intended to address concerns regarding the high numbers of blue sharks discarded dead by the longline fisheries and create an incentive to reduce blue shark dead discards while mitigating the potential adverse impacts of counting dead discards against the pelagic shark quota.

For the SCS management unit, NMFS is proposing to cap the commercial quota at 359 mt dw, which is 10 percent higher than 1997 harvest levels. This measure is proposed because NMFS believes that SCS landings statistics may substantially underestimate SCS mortality as these sharks are used for bait and thus not being landed and counted against the quota. This measure is intended to allow for limited fishery expansion, but eliminate the potential for excessive growth in the fishery.

For recreational shark fisheries, NMFS proposes to eliminate recreational landings of LCS and SCS and to set a catch limit of one pelagic shark per vessel per trip. Despite reductions in shark catch limits in the recreational fishery in 1997, recreational catches for LCS were reduced by only 12 percent (in numbers of fish), and for sandbar and blacktip sharks, recreational catches increased. NMFS therefore concludes that the catch limit reduction was not effective at implementing a 50 percent catch reduction. The proposed measure is consistent with National Standard 1 to rebuild the overfished LCS stocks and would enhance stock status for the fully fished pelagics and SCS. Post-release mortality in recreational fisheries is currently unknown, but is estimated to be low for most shark species. In addition, NMFS proposes to require that all sharks landed by recreational anglers have heads, tails, and fins attached to the carcass of the shark. This measure is expected to have minimal economic and social impacts, but would greatly facilitate dockside species-specific identification of shark landings for monitoring, management, and enforcement purposes.

To account for all sources of fishing mortality on HMS stocks, NMFS proposes to count dead discards of sharks in the commercial fishery and commercial state landings of sharks after federal closures against the federal quotas. This measure would reduce the available commercial quota significantly, which would enhance rebuilding of LCS. For pelagic sharks, this measure could substantially reduce the available commercial quota because recent estimates of dead discards of pelagic sharks have constituted a large portion of the quota. For SCS, this measure is not expected to reduce the available commercial quota because most SCS that are not landed are used for bait, and so are not discarded. Because post-release mortality in recreational fisheries is thought to be minimal, dead discards of sharks in commercial fisheries only are proposed to be counted against quotas at this time.

To account for overage and underages in harvest, NMFS proposes to adjust any commercial shark quota overages and underages in a given period in the same period the following year, and adjust management measures to account for recreational overages and underages of the recreational harvest limits on an annual basis. These measures support rebuilding of large coastal sharks because they ensure that harvest overages will be accounted for in setting future harvest limits and will not delay LCS rebuilding.

To simplify the procedures for managing the brief fishing season for large coastal sharks, NMFS proposes to establish opening and closing dates of the LCS fishery prior to the fishery opening based on historical catch rates. NMFS also proposes to adjust overages and underages the following year and not reopen the fishery within a season if there was a quota underage. This measure is intended to increase the stability and predictability in the LCS fishery and reduce enforcement costs and administrative burden of projecting closures on real-time landings monitoring.

To collect sufficient data from exempted fishing permits, NMFS proposes to establish a separate shark public display quota of 0.5 percent of the LCS commercial quota (43 mt dw or 60 mt ww). This measure would make quota accounting and monitoring procedures for sharks collected under the authority of an exempted fishing permit consistent with those for Atlantic tunas (BFT collected under the authority of an EFP are deducted from Reserve quota or School Reserve quota, depending on size).

To reduce bycatch mortality in recreational HMS fisheries, NMFS intends to launch an educational program for recreational HMS fishermen to: (1) distribute information concerning de-hooking devices and hook and leader types that may increase post-release survival, (2) encourage a catch and release ethic, and (3) educate fishermen about reporting requirements which include reporting of bycatch species.

To enhance enforcement and reduce waste, NMFS proposes to extend the prohibition on finning to all sharks, regardless of whether the shark species are defined as part of Federal management unit or are subject to any Federal regulations, as a condition of the Federal commercial shark permit. This measure should enhance enforcement capabilities by removing a costly and time-consuming administrative burden of verifying species-specific identification of shark fins through genetic testing.

Additionally, NMFS proposes to establish a two-tiered commercial fishing permit system with "directed" and "incidental" permits, based on historic and current permit and landings histories, to address overcapitalization in the commercial HMS fisheries. Limited access provisions were first proposed for the Atlantic swordfish and Atlantic sharks fisheries on February 26, 1997 (62 FR 8672), and December 27, 1996 (61 FR 68202), respectively, and were described in draft amendments to the Swordfish and Shark FMPs (dated January 28, 1997, and November 8, 1996, respectively). Due to the delays in implementation of the proposed limited access systems and the magnitude of changes under development, NMFS decided to re-propose the limited access systems as part of the HMS FMP and include provisions for the Atlantic tunas fisheries.

The objectives of limited access are to (a) reduce latent effort (i.e., not exclude permit holders that were active and dependent on swordfish or shark fishing before January 1, 1998) and only eliminate speculative permit holders who, by definition, have not participated in the fisheries, (b) provide mechanisms to allow traditional swordfish handgear fishermen (whose permits may have lapsed due to the scarcity of large fish, which they target) to participate fully as the stock recovers, (c) reduce regulatory discards in both directed and incidental fisheries, (d) provide mechanisms to account for the dynamic and multispecies aspects of these fisheries through permit transferability and vessel upgrading provisions in coordination with regional fishery management councils, and (e) prevent substantial increases in vessel harvesting capacity of the currently active

fleet. A long-term objective for the Atlantic swordfish and shark fisheries is to create a management system in which the U.S. harvesting capacity is commensurate with resource productivity so as to achieve the dual goals of economic efficiency and biological conservation.

Written comments on the draft HMS FMP are encouraged and will be accepted until January 25, 1999. Comments should be addressed to Rebecca Lent, Chief, HMS Division - F/SF1, 1315 East-West Highway, Silver Spring, MD 20910. For a copy of the 1998 SEW Final Report, draft HMS FMP, proposed rule or public hearing schedule, or if you are interested in receiving FAX notices of regulatory actions for Atlantic tunas, swordfish, and sharks, contact Steve Meyers, Margo Schulze or Karyl Brewster-Geisz by phone (301) 713-2347 or by fax (301) 713-1917. The Report on the Status of Fisheries of the United States, an issues/options paper for HMS management, and transcripts of the HMS Advisory Panel meetings can be found online at <<<http://kingfish.ssp.nmfs.gov/sfa>>>.

Summary of shark regulations proposed in the draft HMS FMP¹

PROHIBITED SPECIES				
The following sharks could not be kept commercially or recreationally: Whale, basking, sand tiger, bigeye sand tiger, white, dusky, night, bignose, Galapagos, Caribbean reef, narrowtooth, blue, longfin mako, bigeye thresher, sevengill, sixgill, bigeye sixgill, Caribbean sharpnose, smalltail, and Atlantic angel sharks.				
COMMERCIAL REGULATIONS				
Management Unit	Species that can be kept	Quota	Size Limit	Authorized Gears
Large Coastal Sharks - trip limit of 4,000 lb dw	<u>Ridgeback</u> : Sandbar, silky	642	137 cm FL (4.5 feet FL)	LL; DGN; Rod and reel; handline; bandit gear
	<u>Non-ridgeback</u> : Blacktip, spinner, tiger, lemon, nurse, smooth hammerhead, scalloped hammerhead, great hammerhead	218	None	
Pelagic Sharks	Shortfin mako, thresher, oceanic whitetip	550	None	
	Porbeagle	30		
	Blue (dead discard quota)	273		
Small Coastal Sharks	Atlantic sharpnose, blacknose, finetooth, bonnethead	359	None	
<u>Additional remarks:</u> All sharks not retained must be released in a manner that ensures the maximum probability of survival No finning any sharks no matter what species Fishing year Jan 1- June 30; July 1- Dec 31 Season-specific quota overage and underage adjustments; no reopening that year Limited access proposed Exempted Fishing Permit (EFP) requirements Count dead discards against Federal quota Count state landing after Federal closure against Federal quota				
RECREATIONAL REGULATIONS				
Management Unit	Species that can be kept	Bag Limit	Authorized Gear	
Pelagic sharks	Shortfin mako, thresher, oceanic whitetip, porbeagle	1 shark per vessel per trip	Rod and reel; handline; bandit gear	
Large & Small Coastal Sharks	None	Catch and release only		
<u>Additional remarks:</u> Landed sharks must have fins, head, and tail attached (can be bled if tail is still attached)				

¹This table represents measures that are proposed by this FMP but may not necessarily be finalized. Please refer to the regulations.